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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DODDS, HAROLD E

ART UNIT PAPER NUMBER

2167

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,090

Applicant(s)

COLLINS ET AL.

Examiner

Harold E. Dodds, Jr.

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23 February 2005 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 30 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchhofer et al. (U.S. Patent No. 5,487,164) and Li et al. (U.S. Patent No. 5,802,357).

4. Kirchhofer renders obvious independent claims 30 and 36 by the following:

"...sorting a plurality of data files on the storage device into one or more categories..."
at col. 3, lines 35-39, col. 9, lines 28-30, and col. 3, lines 51-56.

"...based on at least one characteristic of the data files..." at col. 4, lines 2-4.

"...when a storage capacity consumed by the category of data files exceeds a threshold..." at col. 9, lines 44-49, col. 3, lines 51-56, and col. 11, lines 4-8.

Kirchhofer does not teach reallocation of a portion of the data.

5. However, Li teaches the reallocation of a portion of the data as follows:
"...and reallocating a portion of the data in a category of data files..." at col. 14, lines 19-21, col. 34, lines 43-45, and col. 23, lines 56-58.

It would have been obvious to one of ordinary skill at the time of the invention to combine Li with Kirchhofer to reallocate a portion of the data in order to increase the efficiency of the operation. Kirchhofer and Li teach related applications. They teach the use of computers, the sorting of data, the use of data storage, the use of files, and the use of groups. Kirchhofer provides sorting of files, storage devices, groups of records, characteristics, and thresholds and Li provides reallocation of a portion of the data.

For claims 30 and 36, the term "group" is used to suggest the term "category".

6. Claims 31-33 and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchhofer and Li as applied to the claims above, and further in view of de la Salle (U.S. Patent No. 6,144,961).

As per claims 31 and 37, the "...when an amount of available storage capacity on the storage device falls below a threshold..." is taught by Kirchhofer at col. 9, lines 44-49, col. 3, lines 51-56, and col. 11, lines 4-8, but the "...generating a signal..." is not taught by either Kirchhofer or Li.

However, de la Salle teaches sending messages, which is equivalent to generating a signal as follows :

"...An advantage of the present invention is that it can act in a "passive" mode, without sending out frequent query messages which only add traffic onto a network..." at col. 4, lines 61-63.

It would have been obvious to one of ordinary skill at the time of the invention to combine de la Salle with Kirchhofer and Li to send a message in order to alert the user that a significant event has occurred, which may require operator intervention and to promote more efficient operation of the system. Kirchhofer, Li, and de la Salle teach related applications. They teach the use of computers, the sorting of data, the use of data storage, the use of files, and the use of groups, Kirchhofer and de la Salle teach the use of characteristics, and Li and de la Salle teach the use of databases and the use of networks. Kirchhofer provides sorting of files, storage devices, groups of records, characteristics, and thresholds, Li provides reallocation of a portion of the data, and de la Salle provides messages to alert the user that a significant event has occurred.

7. As per claims 32 and 38, the "...presenting, in a user interface, an indicia..." is taught by de la Salle at col. 14, lines 14-18, col. 5, lines 43-46, and col. 12, lines 13-15, the "...of an amount of data storage consumed by a category of data files..." is taught by Kirchhofer at col. 9, lines 44-49 and col. 3, lines 51-56, the "...and presenting, in the user interface..." is taught by de la Salle at col. 14, lines 14-18 and col. 5, lines 43-46, and the "...one more reallocation operations applicable to a category of data files..." is taught by Li at col. 14, lines 19-21 and col. 23, lines 56-58.

8. As per claims 33 and 39, the "...receiving, from the user interface, a first signal identifying ...," is taught by de la Salle at col. 3, lines 24-28, col. 5, lines 43-46, col. 4, lines 61-63, and col. 13, lines 3-7, the "...capacity threshold...", is taught by Kirchhofer at col. 9, lines 44-49 and col. 6, lines 55-60, the "...second signal identifying...", is taught by de la Salle at col. 4, lines 61-63 and col. 13, lines 3-7, the "...reallocation operation...", is taught by Li at col. 14, lines 19-21, the "...and a third signal identifying...", is taught by de la Salle at col. 4, lines 61-63 and col. 13, lines 3-7, the "...category of data files to which the reallocation operation is applicable...", is taught by Li at col. 23, lines 56-58, col. 14, lines 19-21, and col. 31, lines 48-50, the "...and applying the reallocation operation to the category of data files...", is taught by Li at col. 31, lines 48-50, col. 14, lines 19-21, and col. 23, lines 56-58, and the "...when the category of data files consumes an amount of storage exceeding the capacity threshold...", is taught by Kirchhofer at col. 3, lines 51-56, col. 9, lines 44-49, and col. 11, lines 4-8.

9. Claims 34 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchhofer, Li, and de la Salle as applied to claims 33 and 38 above respectively, and further in view of Reed et al. (U.S. Patent No. 5,862,325).

As per claims 34 and 40, the "...applying the reallocation operation to the category of data files...", is taught by Li at col. 31, lines 48-50, col. 14, lines 19-21, and col. 23, lines 56-58, the "...identified in the signal...", is taught by de la Salle at col. 13, lines 3-7 and col. 4, lines 61-63, the "...comprises performing an operation selected from the group of operations...", is taught by Li at col. 23, lines 39-41, col. 23, lines 56-58, and col. 21, lines 22-25, but the "...consisting of deleting a file, compressing a file, moving a file, and archiving a file...", is not taught by either Kirchhofer, Li, or de la Salle.

However, Reed teaches the deleting a file, compressing a file, moving a file, and archiving a file as follows:

"...Just as a move operation on a computer file is often implemented by the operating system as a copy operation followed by a delete operation on the original file, a communications object transfer method may be carried out as a forwarding method followed by a termination method..." at col. 85, lines 23-27.

"...For example, data, metadata and instructions in the transferred information can be used by the consumer program 22 or other computer programs running on the consumer computer 2 to automatically format, compress, encrypt, address, and transmit copies of a word processing document, spreadsheet, database or database query, or other computer file format..." at col. 14, lines 41-47.

"...By functioning as active databases, the provider program 12 and consumer program 22 can control the archiving of the data they store..." at col. 90, lines 23-25.

It would have been obvious to one of ordinary skill at the time of the invention to combine Reed with Kirchhofer, Li, and de la Salle to delete, compress, move, and

archive files in order to have a range of standard operations that may be performed on files and thus gain greater acceptance by potential users of the system. Kirchhofer, Li, de la Salle, and Reed teach related applications. They teach the use of computers, the sorting of data, the use of data storage, the use of files, and the use of groups, Kirchhofer, de la Salle, and Reed teach the use of characteristics, and Li, de la Salle, and Reed teach the use of databases and the use of networks. Kirchhofer provides sorting of files, storage devices, groups of records, characteristics, and thresholds, Li provides reallocation of a portion of the data, de la Salle provides messages to alert the user that a significant event has occurred, and Reed provides deleting, compressing, moving, and archiving files.

10. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchhofer and Li as applied to claims 30 and 36 above respectively, and further in view of Jenevein (U.S. Patent No. 6,173,291).

As per claim 35, the "...sorting a plurality of data files on the storage device into one or more categories...", is taught by Kirchhofer at col. 3, lines 35-39, col. 9, lines 28-30, and col. 3, lines 51-56, the "...based on at least one characteristic of the data files...", is taught by Kirchhofer at col. 4, lines 2-4, the "...comprises sorting files...", is taught by Kirchhofer at col. 3, lines 35-39, but the "...in a file allocation table based on a file extension associated with the file....," is not taught by either Kirchhofer or Li.

However, Jenevein teaches the use of file allocation tables and file extensions as follows:

"...If a file is allocated more than one cluster, the additional clusters must be chained together by the operating system by looking up a pointer to the next cluster in file allocation table (FAT) 46a for the partition..." at col. 3, lines 47-50.

"...Furthermore, the process checks each entry for permitted byte values in the file name and file extension fields, as well as in date and time stamp fields for creation and last modification..." at col. 9, lines 36-39.

It would have been obvious to one of ordinary skill at the time of the invention to combine Jenevein with Kirchhofer and Li to use file allocation tables and file extensions in order to use standard structures for file systems and thus gain greater acceptance by potential users of the system. Kirchhofer, Li, and Jenevein teach related applications. They teach the use of computers, the sorting of data, the use of data storage, the use of files, and the use of groups and Kirchhofer and Jenevein teach the use of characteristics. Kirchhofer provides sorting of files, storage devices, groups of records, characteristics, and thresholds, Li provides reallocation of a portion of the data, and Jenevein provides file allocation tables and file extensions.

11: Claims 41-44, 46, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchhofer et al. (U.S. Patent No. 5,487,164), Li et al. (U.S. Patent No. 5,802,357), and de la Salle (U.S. Patent No. 6,144,961).

12. Kirchhofer renders obvious independent claim 41 by the following:

"...a processor..." in Figure 4A.

"...a storage device communicatively connected to the processor..." in Figure 4A.

"...a memory module comprising logic instructions recorded in a computer-readable medium which, when executed by a processor, configure the processor to..." in Figure 4A.

"...when an amount of available storage capacity on the storage device falls below a threshold..." at col. 9, lines 44-49, col. 3, lines 51-56, and col. 11, lines 4-8.

"...of an amount of data storage consumed by a category of data files..." at col. 9, lines 44-49 and col. 3, lines 51-56.

"...a capacity threshold..." at col. 9, lines 44-49 and col. 6, lines 55-60.

"...when the category of data files consumes an amount of storage exceeding the capacity threshold..." at col. 3, lines 51-56, col. 9, lines 44-49, and col. 11, lines 4-8.

Kirchhofer does not teach the reallocation of data, the generation of signals, and the use of user interfaces.

13. However, Li teaches the reallocation of data as follows:

"...and one more reallocation operations applicable to a category of data files..." at col. 14, lines 19-21 and col. 23, lines 56-58.

"...a reallocation operation..." at col. 14, lines 19-21.

"...a category of data files to which the reallocation operation is applicable..." at col. 23, lines 56-58, col. 14, lines 19-21, and col. 31, lines 48-50.

"...and apply the reallocation operation to the category of data files..." at col. 31, lines 48-50, col. 14, lines 19-21, and col. 23, lines 56-58.

It would have been obvious to one of ordinary skill at the time of the invention to combine Li with Kirchhofer to reallocate a portion of the data in order to increase the

efficiency of the operation. Kirchhofer and Li teach related applications. They teach the use of computers, the sorting of data, the use of data storage, the use of files, and the use of groups. Kirchhofer provides sorting of files, storage devices, groups of records, characteristics, and thresholds and Li provides reallocation of a the data.

Li does not teach the generation of signals and the use of user interfaces.

14. However, de la Salle teaches sending messages, which is equivalent to generating a signal and the use of user interfaces as follows:

"...generate a signal..." at col. 4, lines 61-63.

"...and, in response to the signal..." at col. 7, lines 54-59 and col. 4, lines 61-63.

"...to present, in a user interface, an indicia..." at col. 14, lines 14-18, col. 5, lines 43-46, and col. 12, lines 13-15.

"...receive, from the user interface, a first signal identifying..." at col. 3, lines 24-28, col. 5, lines 43-46, col. 4, lines 61-63, and col. 13, lines 3-7.

"...a second signal identifying..." at col. 4, lines 61-63 and col. 13, lines 3-7.

"...and a third signal identifying..." at col. 4, lines 61-63 and col. 13, lines 3-7.

It would have been obvious to one of ordinary skill at the time of the invention to combine de la Salle with Kirchhofer and Li to send a message in order to alert the user that a significant event has occurred, which may require operator intervention and to promote more efficient operation of the system. Likewise, it would have been obvious to one of ordinary skill at the time of the invention to combine de la Salle with Kirchhofer and Li to use user interfaces in order to employ a standard means of allowing users to receive messages and enter responses into a computer system. Kirchhofer, Li, and de

la Salle teach related applications. They teach the use of computers, the sorting of data, the use of data storage, the use of files, and the use of groups, Kirchhofer and de la Salle teach the use of characteristics, and Li and de la Salle teach the use of databases and the use of networks. Kirchhofer provides sorting of files, storage devices, groups of records, characteristics, and thresholds, Li provides reallocation of the data, and de la Salle provides messages to alert the user that a significant event has occurred and user interfaces.

15. As per independent claim 46, the "...processor...", is taught by Kirchhofer in Figure 4A,
the "...storage device communicatively connected to the processor...", is taught by Kirchhofer in Figure 4A,
the "...user interface to present an indicia...", is taught by de la Salle at col. 5, lines 43-46, col. 14, lines 14-18; and col. 12, lines 13-15,
the "...of an amount of data storage consumed by a category of data files...", is taught by Kirchhofer at col. 9, lines 44-49 and col. 3, lines 51-56,
the "...and one more reallocation operations applicable to the category of data files..." is taught by Li at col. 14, lines 19-21 and col. 23, lines 56-58,
the "...memory module comprising logic instructions recorded in a computer-readable medium which, when executed by a processor, configure the processor to...", is taught by Kirchhofer in Figure 4A,
the "...receive, from the user interface, a first signal identifying...", is taught by de la Salle at col. 3, lines 24-28, col. 5, lines 43-46, col. 4, lines 61-63, and col. 13, lines 3-7,

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the "...capacity threshold...", is taught by Kirchhofer at col. 9, lines 44-49 and col. 6, lines 55-60,

the "...second signal identifying...", is taught by de la Salle at col. 4, lines 61-63 and col. 13, lines 3-7,

the "...reallocation operation...", is taught by Li at col. 14, lines 19-21,

the "...and a third signal identifying...", is taught by de la Salle at col. 4, lines 61-63 and col. 13, lines 3-7,

the "...category of data files to which the reallocation operation is applicable...", is taught by Li at col. 23, lines 56-58, col. 14, lines 19-21, and col. 31, lines 48-50,

the "...monitor a storage capacity consumed by the category of data files...", is taught by Kirchhofer at col. 8, lines 10-11, col. 9, lines 44-49, and col. 3, lines 51-56,

the "...identified by the third signal...", is taught by de la Salle at col. 13, lines 3-7 and col. 4, lines 61-63,

the "...and apply a reallocation operation to the category of data files...", is taught by Li at col. 31, lines 48-50, col. 14, lines 19-21, and col. 23, lines 56-58,

the "...identified by the third signal..." is taught by de la Salle at col. 13, lines 3-7 and col. 4, lines 61-63,

the "...when the category of data files...", is taught by Kirchhofer at col. 3, lines 51-56,

the "...identified by the third signal...", is taught by de la Salle at col. 13, lines 3-7 and col. 4, lines 61-63,

the "...consumes an amount of storage exceeding the capacity threshold...", is taught by Kirchhofer at col. 9, lines 44-49 and col. 11, lines 4-8,

the "...identified by the first signal..." is taught by de la Salle at col. 13, lines 3-7 and col. 4, lines 61-63.

16. As per claims 42 and 48, the "...sort a plurality of data files on the storage device associated into one or more categories..." is taught by Kirchhofer at col. 3, lines 35-39, col. 9, lines 28-30, and col. 3, lines 51-56, the "...based on at least one characteristic of the data files..." is taught by Kirchhofer at col. 4, lines 2-4, the "...and reallocate a portion of the data in a category of data files..." is taught by Li at col. 14, lines 19-21, col. 34, lines 43-45, and col. 23, lines 56-58, and the "...when a storage capacity consumed by the category of data files exceeds a threshold..." is taught by Kirchhofer at col. 9, lines 44-49, col. 3, lines 51-56, and col. 11, lines 4-8.

17. As per claim 43, the "...present, in a user interface, an indicia..." is taught by de la Salle at col. 14, lines 14-18, col. 5, lines 43-46, and col. 12, lines 13-15, the "...of an amount of data storage consumed by a category of data files..." is taught by Kirchhofer at col. 9, lines 44-49 and col. 3, lines 51-56, the "...and present, in the user interface..." is taught by de la Salle at col. 14, lines 14-18 and col. 5, lines 43-46, and the "...one more reallocation operations applicable to a category of data files..." is taught by Li at col. 14, lines 19-21 and col. 23, lines 56-58.

18. As per claim 44, the "...monitor a storage capacity consumed by a category of data files...", is taught by Kirchhofer at col. 8, lines 10-11, col. 9, lines 44-49, and col. 3, lines 51-56, the "...and apply a reallocation operation to the category of data files...", is taught by Li at col. 31, lines 48-50, col. 14, lines 19-21, and col. 23, lines 56-58, and the "...when the category of data files consumes an amount of storage exceeding a capacity threshold...", is taught by Kirchhofer at col. 9, lines 44-49, col. 3, lines 51-58, and col. 11, lines 4-8.

19. Claims 45 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirchhofer, Li, and de la Salle as applied to claims 41 and 46 above respectively, and further in view of Reed.

As per claims 45 and 47, the "...perform an operation selected from the group of operations...", is taught by Li at col. 23, lines 39-41, col. 23, lines 56-58, and col. 21, lines 22-25, but the "...consisting of deleting a file, compressing a file, moving a file, and archiving a file...", is not taught by either Kirchhofer, Li, or de la Salle.

However, Reed teaches the deleting a file, compressing a file, moving a file, and archiving a file as follows:

"...Just as a move operation on a computer file is often implemented by the operating system as a copy operation followed by a delete operation on the original file, a communications object transfer method may be carried out as a forwarding method followed by a termination method..." at col. 85, lines 23-27.

"...For example, data, metadata and instructions in the transferred information can be used by the consumer program 22

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or other computer programs running on the consumer computer 2 to automatically format, compress, encrypt, address, and transmit copies of a word processing document, spreadsheet, database or database query, or other computer file format..." at col. 14, lines 41-47.

"...By functioning as active databases, the provider program 12 and consumer program 22 can control the archiving of the data they store..." at col. 90, lines 23-25.

It would have been obvious to one of ordinary skill at the time of the invention to combine Reed with Kirchhofer, Li, and de la Salle to delete, compress, move, and archive files in order to have a range of standard operations that may be performed on files and thus gain greater acceptance by potential users of the system. Kirchhofer, Li, de la Salle, and Reed teach related applications. They teach the use of computers, the sorting of data, the use of data storage, the use of files, and the use of groups, Kirchhofer, de la Salle, and Reed teach the use of characteristics, and Li, de la Salle, and Reed teach the use of databases and the use of networks. Kirchhofer provides sorting of files, storage devices, groups of records, characteristics, and thresholds, Li provides reallocation of the data, de la Salle provides messages to alert the user that a significant event has occurred and user interfaces, and Reed provides deleting, compressing, moving, and archiving files.

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harold E. Dodds, Jr. whose telephone number is (571)-272-4110. The examiner can normally be reached on Monday - Friday 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571)-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Harold E. Dodds, Jr.

Harold E. Dodds, Jr.
Patent Examiner
April 22, 2005


CRETA ROBINSON
PATENT EXAMINER